



**S P O R T M E D I C I N E & S C I E N C E**  
C O U N C I L O F M A N I T O B A

# CONCUSSION MANAGEMENT

## DEFINITION OF CONCUSSION

Temporary change in mental state as a result of trauma (may be blow to head, face or jaw; may result from whiplash effect to neck)  
**NOT NECESSARILY WITH LOSS OF CONSCIOUSNESS**

C-SPINE PRECAUTIONS  
AIRWAY, BREATHING, CIRCULATION  
ASSESS LEVEL OF CONSCIOUSNESS



## MANAGEMENT OF ATHLETE WITH CONCUSSION

When an athlete shows any signs or symptoms of concussion:

1. No return to current game or practice the day of injury
2. Medical evaluation necessary including full SCAT3 assessment on the sidelines or medical facility
3. No aspirin or anti-inflammatory for pain; acetaminophen ok
4. No alcohol or sleeping pills\
5. Do not leave alone - regular monitoring for deterioration is essential in first few hours.
6. To Emergency Department if worsening symptoms or if new symptoms develop
7. Return-to-play must follow a medically supervised, stepwise process (No training until medically cleared)

## RETURN-TO-PLAY

Proceed to next step only when asymptomatic for 24 hours; if symptoms recur, return to step 1 and seek re-evaluation by physician

Step 1: No activity; complete physical and mental rest  
(no videogames; no texting)

Step 2: Light exercise (walking; stationary bike)

Step 3: Sport-specific activity (e.g. skating)

Step 4: "On-field" practice without body contact / light resistance training

Step 5: "On-field" practice with body contact (once cleared by medical doctor)

Step 6: Game play

***"When in doubt, sit them out!"***

# CONCUSSION SCREENING

## 1. SIGNS AND SYMPTOMS OF CONCUSSION:

Headache / pressure in head	Poor balance
Dizziness	Poor concentration / easily distracted
Neck pain	Slow or slurred speech
Feeling dazed / "in a fog"	Slow responses to questions
Feeling "dinged" or stunned / "bell rung"	Slow to follow instructions
Feeling "slowed down"	Vacant stare / glassy eyed
Sleepiness	Decreased playing ability
Seeing stars	Unusual / inappropriate emotions
Double or blurred vision	Personality changes / irritability
Sensitivity to light or noise	Inappropriate behaviour (skate/run wrong direction)
Ringing in ears	Loss of consciousness
Nausea / vomiting	Memory deficits / amnesia
Confusion	Seizure / convulsion
Disorientation (unaware of time / date / place)	

**\*Presence of any of the above symptoms may suggest concussion**

## 2. MENTAL STATUS TESTING:

- What venue are we at today?  
(which gym / stadium / rink is this?)
- Which half (quarter / period / round) is this?
- Who scored last in this match (game / fight)?
- What team did you play last week / game (Who was your opponent in the last match)?
- Did you / your team win the last match / game?

**Failure to answer all questions correctly may suggest concussion**

## 3. BALANCE TESTING:

- Tandem Stance: (Requires stop-watch)
- Stand heel-to-toe with non-dominant foot in back (weight evenly distributed)
- Then balance for 20 seconds with hands on hips / eyes closed

**More than 5 errors => may suggest concussion:**

- E.g.
- Lift hands off hips
  - Open eyes
  - Lift forefoot or heel
  - Step / stumble / fall
  - Remain out of start position more than 5 seconds

**IF CONCUSSION SUSPECTED, REMOVE FROM PLAY AND ASSESS FULLY WITH SCAT 3 CONCUSSION ASSESSMENT TOOL**  
<http://bjsm.bmj.com/content/47/5/259.full.pdf>



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